...PBB[IBBPBBPBBPBBPBB]IBBP... (coding order)

...P[BBIBBPBBPBBPBBP]BBIBBP... (display order)

FIG. 1 (PRIOR ART)

...B_1 B_2 P_3 B_4 B_5 I_6 B_7 B_8 P_9 $B_{10}B_{11}P_{12}$... (display order)

[...P_3 B_1 B_2][I_6 B_4 B_5 P_9 B_7 B_8 P_{12} $B_{10}B_{11}$...] (coding order)

FIG. 2 (PRIOR ART)

...R^A B_1^A B_2^A ... $B_{M-1}^A R^B$ B_1^B B_2^B ... $B_{M-1}^B R^C$ ... (display order)

[...R^B B_1^A B_2^A ... B_{M-1}^A][R^C B_1^B B_2^B ... B_{M-1}^B][R^D ... (coding order)

FIG. 3

$...R^A\ B_1^A\ B_2^A\ ...\ B_{M-1}^A R^B\ R^C\ B_1^C\ B_2^C\ ...\ B_{M-1}^C R^D\ ...$ (display order)

$[...R^B\ B_1^A\ B_2^A\ ...\ B_{M-1}^A][R^C\ R^D\ B_1^C\ B_2^C\ ...\ B_{M-1}^C][R^E\ ...$ (coding order)

FIG. 4

$...R^A\ B_1^A\ B_2^A\ ...\ B_{M-1}^A R^B\ B_1^B\ B_2^B\ ...\ B_{M-1}^B R^C\ ...$ (display order)

$[...R^B\ B_1^A\ B_2^A\ ...\ B_{M-1}^A][R^C\ B_1^B\ B_2^B\ ...\ B_{M-1}^B][R^D\ ...$ (coding order)

FIG. 5

$...R^A\ B_1^A\ B_2^A\ ...\ B_{M-1}^A R^B\ R^C\ B_1^C\ B_2^C\ ...\ B_{M-1}^C R^D\ ...$ (display order)

$[...R^B\ B_1^A\ B_2^A\ ...\ B_{M-1}^A R^C\ ][R^D\ B_1^C\ B_2^C\ ...\ B_{M-1}^C][R^E\ ...$ (coding order)

FIG. 6

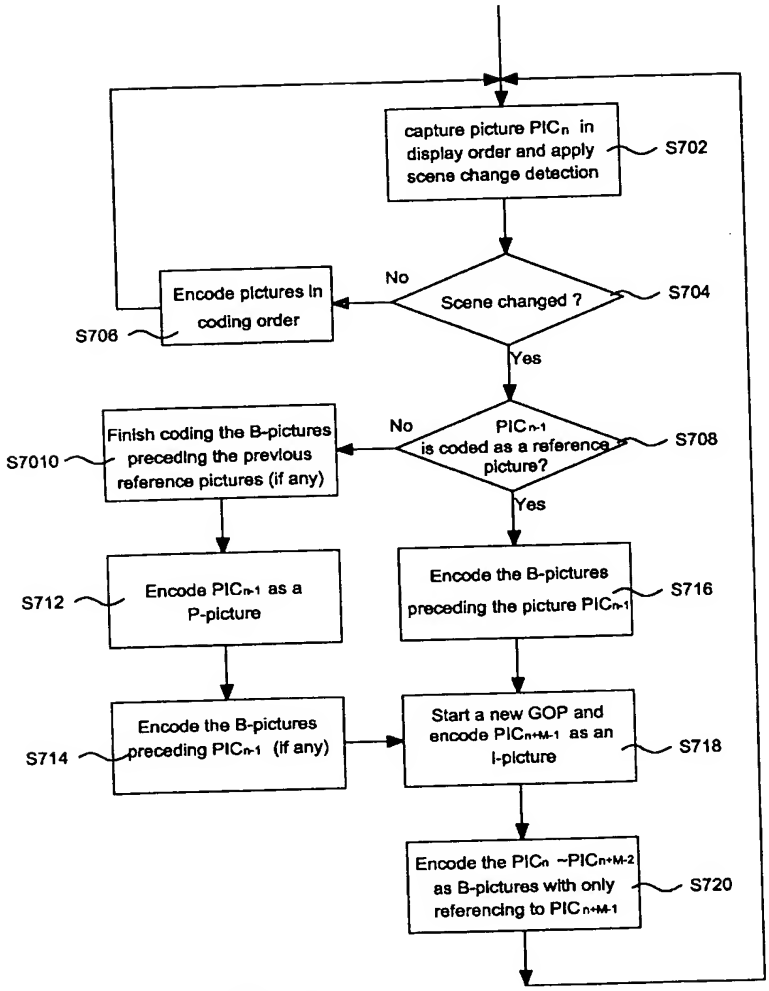
capture picture PICn in display order and apply scene change detection
S702
Scene changed ?
S704
No
Yes
Encode pictures in coding order
S706
PICn-1 is coded as a reference picture?
S708
No
Yes
Finish coding the B-pictures preceding the previous reference pictures (if any)
S7010
Encode PICn-1 as a P-picture
S712
Encode the B-pictures preceding the picture PICn-1
S716
Encode the B-pictures preceding PICn-1 (if any)
S714
Start a new GOP and encode PICn+M-1 as an I-picture
S718
Encode the PICn ~PICn+M-2 as B-pictures with only referencing to PICn+M-1
S720

FIG. 7